OBJECTIVES: The long-term benefits on life expectancy of more effective antihypertensive strategies to lower blood pressure are not well described, particularly for certain groups with different cardiovascular (CV) risk factor profiles. We projected the life expectancy benefits of anti-hypertensive treatment strategies using a unique primary/secondary prevention Markov Model derived from a large epidemiologic database.
METHODS: Longitudinal data from 57,279 middle-aged and older male and female health professionals were pooled to develop a primary and secondary CV event Markov model estimating the long-term benefits of antihypertensive treatment based on both systolic and diastolic blood pressure reduction. Seven patient states were defined: no CV event history, stroke, myocardial infarction, revascularization, non-CV death, CV death, and history of CV event. Risk functions were developed from gender-specific multivariate Cox proportional hazards models for primary events, and age-adjusted models for secondary events. The area between survival curves of different interventions was calculated to estimate the incremental gains in life expectancy for the superior antihypertensive treatment intervention.
RESULTS: We assumed a pre-treatment blood pressure of 160 mm Hg systolic/95 mm Hg diastolic. We further assumed that Strategy A yields a lowering of 20/13 mm Hg and Strategy B yields a reduction of 13/8 mm Hg. Post treatment blood pressures at the start of the simulation were thus 140/82 mm Hg for Strategy A and 147/87 mm Hg for Strategy B. Assuming an age of 35 years at baseline and cycling the model for 65 years, a life expectancy gain of 0.7 years is achieved for Strategy A versus Strategy B. In a diabetic population, there was a life expectancy gain of 0.79 years for Strategy A versus Strategy B.
CONCLUSIONS: Substantial gains in life expectancy due to reduction in both primary and secondary CV events can be achieved by superior strategies of blood pressure lowering.

CARDIOVASCULAR DISEASES/DISORDERS—*Economic Outcomes Presentations*

PCV11

THE COST OF WARFARIN MONITORING IN ANTICOAGULATION CLINICS: A MULTI-SITE MANAGED CARE STUDY

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OBJECTIVE: To estimate the average cost of anticoagulation clinic services from a provider perspective.
METHODS: Using a retrospective cohort approach, a random sample of 600 patients was selected from 3 geographically diverse managed care sites (N = 200 per site) with anticoagulation clinics and followed for up to one year. Care was provided under a traditional nurse or pharmacist managed clinic model with most encounters involving telephone contacts. Study patients included adults aged 18+ years with a diagnosis of nonvalvular atrial fibrillation who received warfarin for at least 30 days. Patient contacts were evaluated based on complexity (education, warfarin dose adjusted, warfarin dose not adjusted) and the total cost of anticoagulation clinic care was calculated for staff time, laboratory tests, and overhead. Unit costs were estimated based on national data. Labor costs were measured by observing the actual time spent by clinic staff on individual patient encounters using a prospective time study ("activity-based" approach), and through a survey of budgeted labor hours ("budgeted-cost" approach).
RESULTS: The average age of patients was 72 years and 56% were female. Approximately 85% were white. About 75% of patients completed one year of clinic follow-up (mean duration: 10.5 months). Patients averaged 18 clinic contacts. The cost of staff time for warfarin monitoring during follow-up was estimated to be $91 under the activity-based approach and $176 using the budgeted-cost approach. These costs increased to $244 and $330 for the activity-based and budgeted-cost approaches, respectively, once laboratory tests and overhead were included. Average costs for patients who were followed for a full year were $268 and $362, respectively. While anticoagulation control was relatively similar across sites (60% to 65% time in INR range), there was more marked variation in costs.
CONCLUSIONS: This study provides a detailed, multi-site assessment of the costs of warfarin monitoring using multiple costing methodologies.

PCV12

IMPACT OF ATRIAL FIBRILLATION ON RESOURCE UTILIZATION AND COSTS IN PATIENTS WITH UNDERLYING CARDIOVASCULAR DISEASES

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Atrial fibrillation (AF), the most common persistent arrhythmia, increases the risk of stroke manifolds. This risk is further enhanced in the presence of underlying cardiovascular diseases (CVD). Yet, the health care costs and utilization associated with this condition have not been well studied.
OBJECTIVE: To compare the resource utilization and costs among patients with and without AF in an employer-based privately insured population with underlying CVD.
METHODS: Retrospective claims data from a large group of self-insured employers were used. Patients continuously enrolled from January 1, 1996 to December 31,